

Substance Name	CASRN	Test Lab	In Vitro Concentration Tested	In Vitro Physical Form Tested	Purity (%)	Solubility	pH	IS(A) <sup>1</sup>	IS(A) SD	IS(A) Classification	Overall IS(A) Classification	Reference
Acetic acid	64-19-7	1	10%	Solution			2.4	16.5	2.89	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Acetic acid	64-19-7	2	10%	Solution			2.4	16	3.92	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Acetic acid	64-19-7	3	10%	Solution			2.4	17.25	6.24	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Acetic acid	64-19-7	4	10%	Solution			2.4	19.5	1.91	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Acetic acid	64-19-7	5	10%	Solution			2.4	17.5	4.04	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Butanol	71-36-3	1	10%	Suspension			7.31	8.25	2.87	Moderate	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Butanol	71-36-3	2	10%	Suspension			7.31	10.5	1.91	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Butanol	71-36-3	3	10%	Suspension			7.31	12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Butanol	71-36-3	4	10%	Suspension			7.31	12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Butanol	71-36-3	5	10%	Suspension			7.31	5.75	1.50	Moderate		Hagino et al. (1999)/Submitted Y. Ohno Data
Cetyltrimethylammonium bromide	57-09-0	1	10%	Solution			5.89	19	1.63	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Cetyltrimethylammonium bromide	57-09-0	2	10%	Solution			5.89	13.25	2.22	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Cetyltrimethylammonium bromide	57-09-0	3	10%	Solution			5.89	18.5	1.91	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Cetyltrimethylammonium bromide	57-09-0	4	10%	Solution			5.89	11	2.45	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Cetyltrimethylammonium bromide	57-09-0	5	10%	Solution			5.89	9	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data

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Chlorhexidine gluconate solution (20% solution)	18472-51-0	1	10%	Solution			6.56	19	1.63	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Chlorhexidine gluconate solution (20% solution)	18472-51-0	2	10%	Solution			6.56	13.5	1.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Chlorhexidine gluconate solution (20% solution)	18472-51-0	3	10%	Solution			6.56	16	2.45	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Chlorhexidine gluconate solution (20% solution)	18472-51-0	4	10%	Solution			6.56	11.75	4.86	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Chlorhexidine gluconate solution (20% solution)	18472-51-0	5	10%	Solution			6.56	9	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Di(2-ethylhexyl) sodium sulfosuccinate	577-11-7	1	10%	Suspension			6.54	10	0.00	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Di(2-ethylhexyl) sodium sulfosuccinate	577-11-7	2	10%	Suspension			6.54	10	1.63	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Di(2-ethylhexyl) sodium sulfosuccinate	577-11-7	3	10%	Suspension			6.54	10.25	3.50	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Di(2-ethylhexyl) sodium sulfosuccinate	577-11-7	4	10%	Suspension			6.54	12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Di(2-ethylhexyl) sodium sulfosuccinate	577-11-7	5	10%	Suspension			6.54	5	0.00	Moderate		Hagino et al. (1999)/Submitted Y. Ohno Data
Diisopropanolamine	110-97-4	1	10%	Solution			11.89	8.25	2.36	Moderate	Moderate	Hagino et al. (1999)/Submitted Y. Ohno Data
Diisopropanolamine	110-97-4	2	10%	Solution			11.89	8.5	4.04	Moderate		Hagino et al. (1999)/Submitted Y. Ohno Data
Diisopropanolamine	110-97-4	3	10%	Solution			11.89	9	1.15	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Diisopropanolamine	110-97-4	4	10%	Solution			11.89	12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Diisopropanolamine	110-97-4	5	10%	Solution			11.89	5	0.00	Moderate		Hagino et al. (1999)/Submitted Y. Ohno Data

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Domiphen bromide	538-71-6	1	10%	Solution			6.22	19	0.00	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Domiphen bromide	538-71-6	2	10%	Solution			6.22	15.25	2.36	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Domiphen bromide	538-71-6	3	10%	Solution			6.22	14.75	1.50	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Domiphen bromide	538-71-6	4	10%	Solution			6.22	12.25	2.36	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Domiphen bromide	538-71-6	5	10%	Solution			6.22	9	1.22	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Ethanol	64-17-5	1	10%	Solution			5.9	0	0.00	Nonirritant	Slight	Hagino et al. (1999)/Submitted Y. Ohno Data
Ethanol	64-17-5	2	10%	Solution			5.9	1.25	2.50	Slight		Hagino et al. (1999)/Submitted Y. Ohno Data
Ethanol	64-17-5	3	10%	Solution			5.9	10.5	1.91	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Ethanol	64-17-5	4	10%	Solution			5.9	1.5	1.73	Slight		Hagino et al. (1999)/Submitted Y. Ohno Data
Ethanol	64-17-5	5	10%	Solution			5.9	1.25	2.50	Slight		Hagino et al. (1999)/Submitted Y. Ohno Data
Ethanol	64-17-5		10%	Solution			7.2	4		Slight		Kojima et al. (1995)
Ethanol	64-17-5	1	100%	Liquid				18.75	3.30	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Ethanol	64-17-5	2	100%	Liquid				16	2.45	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Ethanol	64-17-5	3	100%	Liquid				11.5	1.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Ethanol	64-17-5	4	100%	Liquid				17	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Ethanol	64-17-5	5	100%	Liquid				10.5	1.73	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data

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Glycolic acid	79-14-1	1	10%	Solution			1.76	19.5	1.00	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Glycolic acid	79-14-1	2	10%	Solution			1.76	20	1.15	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Glycolic acid	79-14-1	3	10%	Solution			1.76	17.75	3.95	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Glycolic acid	79-14-1	4	10%	Solution			1.76	12.25	2.36	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Glycolic acid	79-14-1	5	10%	Solution			1.76	12.75	2.50	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Lactic acid	50-21-5	1	10%	Solution			1.94	20.5	1.00	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Lactic acid	50-21-5	2	10%	Solution			1.94	14.25	2.06	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Lactic acid	50-21-5	3	10%	Solution			1.94	19.5	1.91	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Lactic acid	50-21-5	4	10%	Solution			1.94	18.5	1.91	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Lactic acid	50-21-5	5	10%	Solution			1.94	10.25	2.50	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Lactic acid	50-21-5	1	100%	Liquid				21	0.00	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Lactic acid	50-21-5	2	100%	Liquid				6.25	2.50	Moderate		Hagino et al. (1999)/Submitted Y. Ohno Data
Lactic acid	50-21-5	3	100%	Liquid				16	1.15	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Lactic acid	50-21-5	4	100%	Liquid				15.25	2.50	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Lactic acid	50-21-5	5	100%	Liquid				11.5	2.89	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data

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Monoethanolamine	141-43-5	1	10%	Solution			12.58	12	0.00	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Monoethanolamine	141-43-5	2	10%	Solution			12.58	12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Monoethanolamine	141-43-5	3	10%	Solution			12.58	12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Monoethanolamine	141-43-5	4	10%	Solution			12.58	12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Monoethanolamine	141-43-5	5	10%	Solution			12.58	12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Oil/Water Emulsion-HZA			100%	Solution				0		Nonirritant	Nonirritant	Gettings et al. (1994)
Oil/Water Emulsion-HZC			100%	Solution				0.283		Nonirritant	Nonirritant	Gettings et al. (1994)
Oil/Water Emulsion-HZE			100%	Solution				0.533		Nonirritant	Nonirritant	Gettings et al. (1994)
Oil/Water Emulsion-HZF			100%	Solution				7.33		Moderate	Moderate	Gettings et al. (1994)
Oil/Water Emulsion-HZH			100%	Solution				17.8		Severe	Severe	Gettings et al. (1994)
Oil/Water Emulsion-HZI			100%	Solution				1.97		Slight	Slight	Gettings et al. (1994)
Oil/Water Emulsion-HZJ			100%	Solution				0.917		Nonirritant	Nonirritant	Gettings et al. (1994)
Oil/Water Emulsion-HZL			100%	Solution				4.83		Slight	Slight	Gettings et al. (1994)
Oil/Water Emulsion-HZM			100%	Solution				8.33		Moderate	Moderate	Gettings et al. (1994)
Oil/Water Emulsion-HZN			100%	Solution				3.33		Slight	Slight	Gettings et al. (1994)
Oil/Water Emulsion-HZO			100%	Solution				0.5		Nonirritant	Nonirritant	Gettings et al. (1994)
Oil/Water Emulsion-HZR			100%	Solution				10.6		Severe	Severe	Gettings et al. (1994)
Oil/Water Emulsion-HZS			100%	Solution				11.6		Severe	Severe	Gettings et al. (1994)
Oil/Water Emulsion-HZT			100%	Solution				4.1		Slight	Slight	Gettings et al. (1994)
Oil/Water Emulsion-HZU			100%	Solution				0		Nonirritant	Nonirritant	Gettings et al. (1994)
Oil/Water Emulsion-HZV			100%	Solution				0.6		Nonirritant	Nonirritant	Gettings et al. (1994)
Oil/Water Emulsion-HZW			100%	Solution				0.167		Nonirritant	Nonirritant	Gettings et al. (1994)
Oil/Water Emulsion-HZY			100%	Solution				17		Severe	Severe	Gettings et al. (1994)

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Potassium laurate	10124-65-9	1	10%	Solution			10.49	20	1.15	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Potassium laurate	10124-65-9	2	10%	Solution			10.49	13.25	2.50	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Potassium laurate	10124-65-9	3	10%	Solution			10.49	12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Potassium laurate	10124-65-9	4	10%	Solution			10.49	12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Potassium laurate	10124-65-9	5	10%	Solution			10.49	19.33	0.82	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Potassium laurate	10124-65-9		10%	Solution	98%		9.4	14.3		Severe		Kojima et al. (1995)
Sodium lauryl sulfate	151-21-3		10%	Solution	98%		5.4	7.5		Moderate	Severe	Kojima et al. (1995)
Stearyltrimethylammonium chloride	15461-40-2	1	10%	Solution			4.24	16.75	2.06	Severe	Severe	Hagino et al. (1999)/Submitted Y. Ohno Data
Stearyltrimethylammonium chloride	15461-40-2	2	10%	Solution			4.24	13	2.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Stearyltrimethylammonium chloride	15461-40-2	3	10%	Solution			4.24	15.75	3.50	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Stearyltrimethylammonium chloride	15461-40-2	4	10%	Solution			4.24	13.5	1.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Stearyltrimethylammonium chloride	15461-40-2	5	10%	Solution			4.24	9	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Stearyltrimethylammonium chloride	15461-40-2		10%	Solution			5.5	19.3		Severe		Kojima et al. (1995)
Surfactant Based Formulation 1-HZA			10%	Solution				7.8		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 2-HZB			10%	Solution				4.8		Slight	Slight	Gettings et al. (1996)
Surfactant Based Formulation 3-HZC			10%	Solution				9.5		Severe	Severe	Gettings et al. (1996)
Surfactant Based Formulation 4-HZD			10%	Solution				5.2		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 5-HZE			10%	Solution				3.8		Slight	Slight	Gettings et al. (1996)
Surfactant Based Formulation 6-HZF			10%	Solution				8.3		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 7-HZG			10%	Solution				6.3		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 8-HZH			10%	Solution				1.3		Slight	Slight	Gettings et al. (1996)
Surfactant Based Formulation 9-HZI			10%	Solution				9.3		Severe	Severe	Gettings et al. (1996)

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Surfactant Based Formulation 10-HZJ			10%	Solution				2.2		Slight	Slight	Gettings et al. (1996)
Surfactant Based Formulation 11-HZK			10%	Solution				8.8		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 12-HZL			10%	Solution				9.6		Severe	Severe	Gettings et al. (1996)
Surfactant Based Formulation 13-HZM			10%	Solution				4.1		Slight	Slight	Gettings et al. (1996)
Surfactant Based Formulation 14-HZN			10%	Solution				6.1		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 15-HZP			10%	Solution				4.7		Slight	Slight	Gettings et al. (1996)
Surfactant Based Formulation 16-HZQ			10%	Solution				4.9		Slight	Slight	Gettings et al. (1996)
Surfactant Based Formulation 17-HZR			10%	Solution				7.7		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 18-HZS			10%	Solution				8.8		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 19-HZT			10%	Solution				0.2		Nonirritant	Nonirritant	Gettings et al. (1996)
Surfactant Based Formulation 20-HZU			10%	Solution				3.7		Slight	Slight	Gettings et al. (1996)
Surfactant Based Formulation 21-HZV			10%	Solution				7.7		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 22-HZW			10%	Solution				7.8		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 23-HZX			10%	Solution				9		Severe	Severe	Gettings et al. (1996)
Surfactant Based Formulation 24-HZY			10%	Solution				8.7		Moderate	Moderate	Gettings et al. (1996)
Surfactant Based Formulation 25-HZZ			10%	Solution				0.7		Nonirritant	Nonirritant	Gettings et al. (1996)
Triethanolamine	102-71-6		10%	Solution				10.75		Severe	Slight	Bagley et al. (1992)
Triethanolamine	102-71-6	1	10%	Solution			11.26	1.5	2.38	Slight		Hagino et al. (1999)/Submitted Y. Ohno Data
Triethanolamine	102-71-6	2	10%	Solution			11.26	3.75	4.79	Slight		Hagino et al. (1999)/Submitted Y. Ohno Data
Triethanolamine	102-71-6	3	10%	Solution			11.26	11	1.15	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Triethanolamine	102-71-6	4	10%	Solution			11.26	6	1.63	Moderate		Hagino et al. (1999)/Submitted Y. Ohno Data
Triethanolamine	102-71-6	5	10%	Solution			11.26	2.5	2.89	Slight		Hagino et al. (1999)/Submitted Y. Ohno Data

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Triethanolamine	102-71-6	1	100%	Liquid				5	0.00	Moderate	Moderate	Hagino et al. (1999)/Submitted Y. Ohno Data
Triethanolamine	102-71-6	2	100%	Liquid				6.75	3.50	Moderate		Hagino et al. (1999)/Submitted Y. Ohno Data
Triethanolamine	102-71-6	3	100%	Liquid				11.5	1.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Triethanolamine	102-71-6	4	100%	Liquid				12	0.00	Severe		Hagino et al. (1999)/Submitted Y. Ohno Data
Triethanolamine	102-71-6	5	100%	Liquid				6.75	3.50	Moderate		Hagino et al. (1999)/Submitted Y. Ohno Data
Triton X-100	9002-93-1		1%	Solution				9		Severe	Severe	Bagley et al. (1992)
Triton X-100	9002-93-1		10%	Solution			5.75	5		Moderate	Moderate	Kojima et al. (1995)

Abbreviations: CASRN = Chemical Abstract Service Registry Number, SD = Standard Deviation.

<sup>1</sup> IS(A) represents irritation scores that were calculated using the method described in Leupke (1985).